

FIG. 1

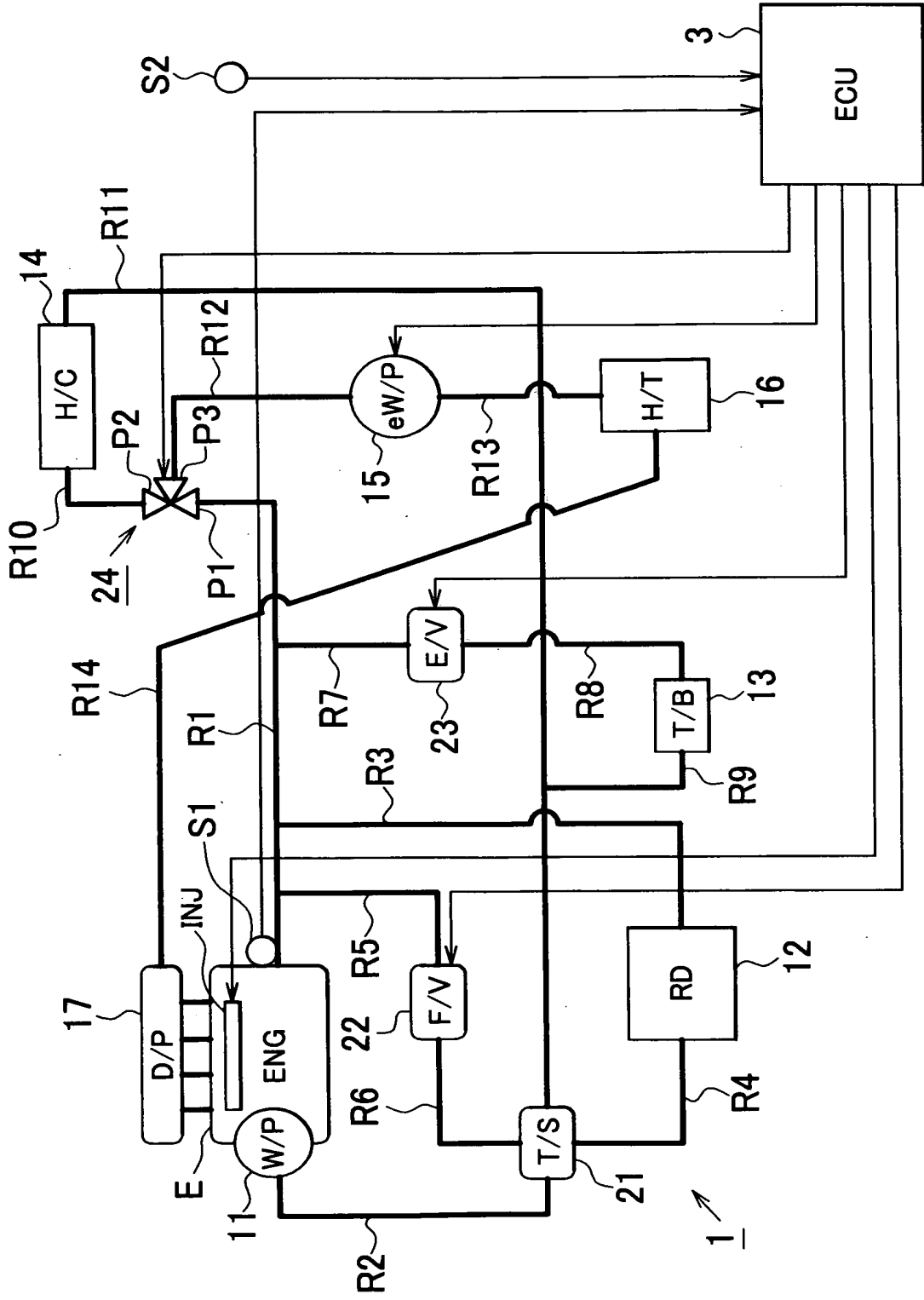


FIG. 2

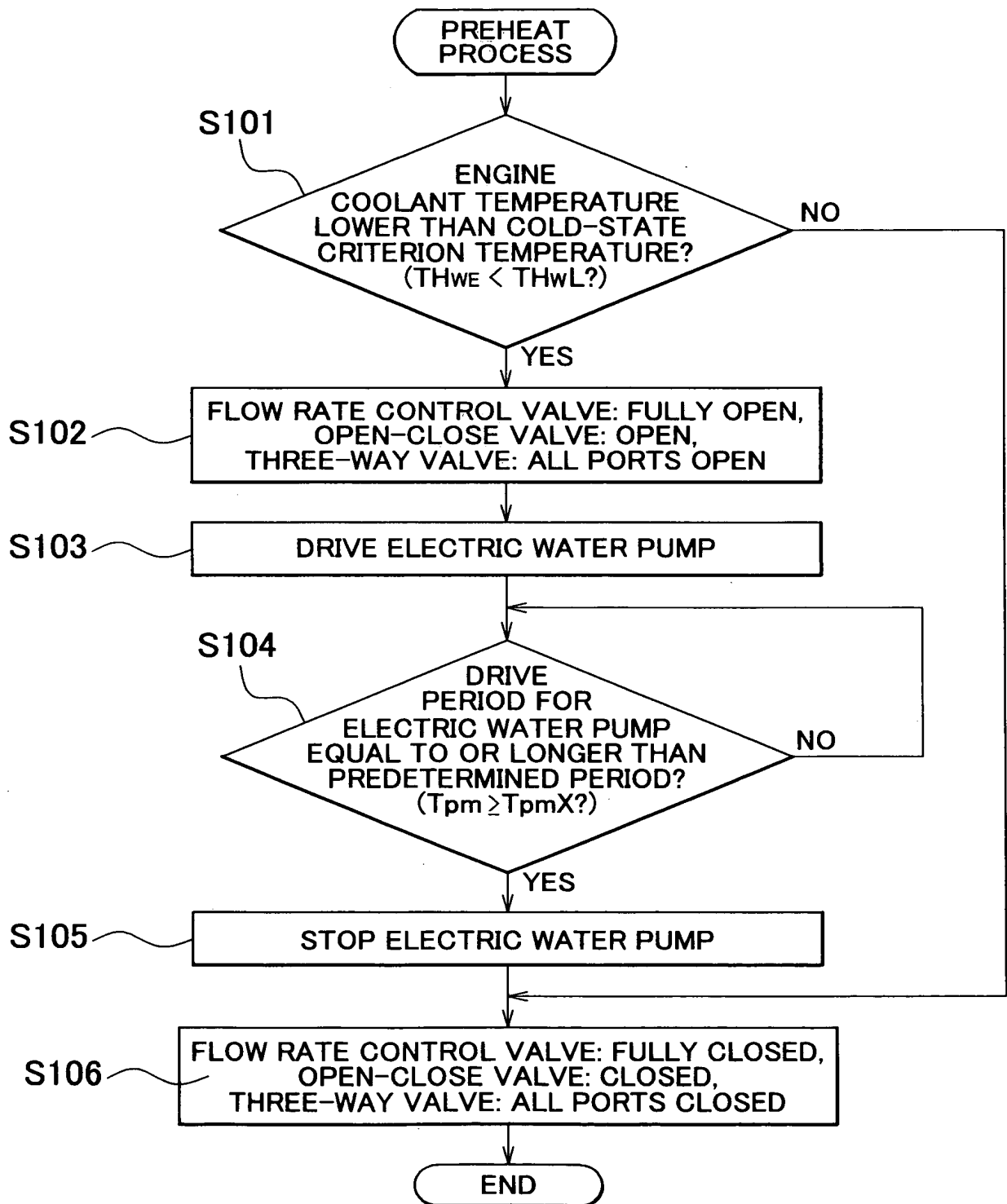


FIG. 3

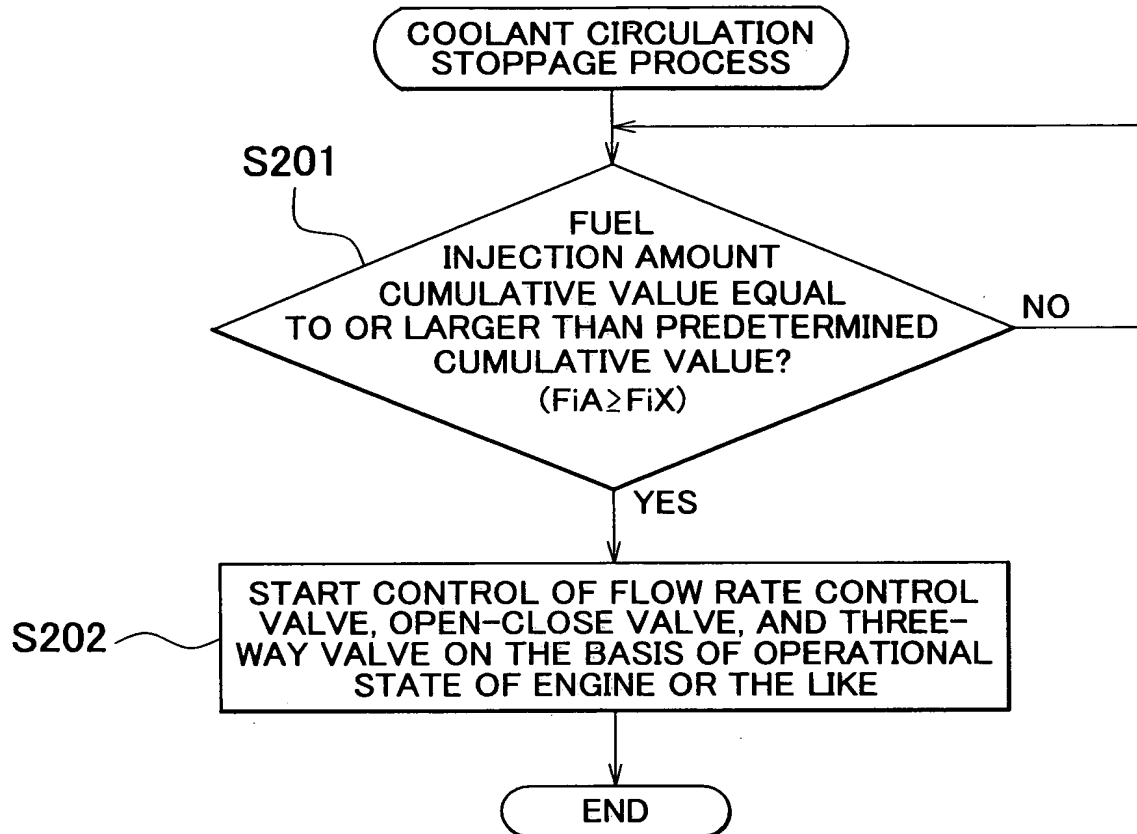


FIG. 4

ENGINE CONTROL DEVICE CONTROL PATTERN

	ELECTRIC WATER PUMP	FLOW RATE CONTROL VALVE	OPEN- CLOSE VALVE	THREE-WAY VALVE	THERMOSTAT
WHEN ENGINE IS STARTED IN COLD STATE (PREHEAT HAS NOT BEEN COMPLETED)	DRIVEN	FULLY OPEN	OPEN	ALL PORTS OPEN (HEATER PASSAGE/ HEAT-ACCUMULATING PASSAGE: OPEN)	CLOSED
WHEN ENGINE IS STARTED IN COLD STATE (PREHEAT HAS BEEN COMPLETED)	STOPPED	FULLY CLOSED	CLOSED	ALL PORTS CLOSED (HEATER PASSAGE/ HEAT-ACCUMULATING PASSAGE: CLOSED)	
WHEN ENGINE IS STARTED IN HOT STATE					
IMMEDIATELY AFTER ENGINE HAS BEEN STARTED (Fia < Fix)					

FIG. 5

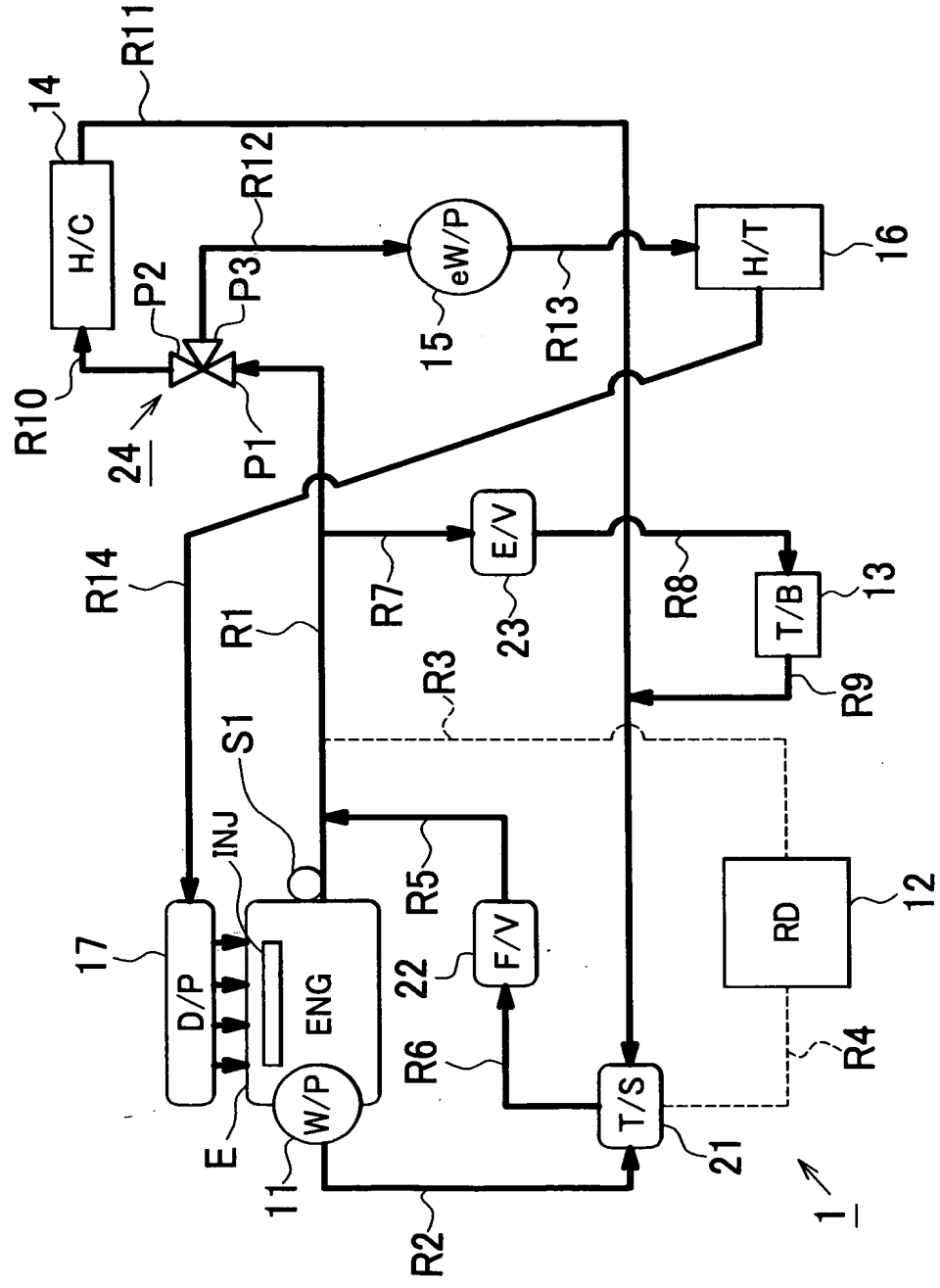


FIG. 6

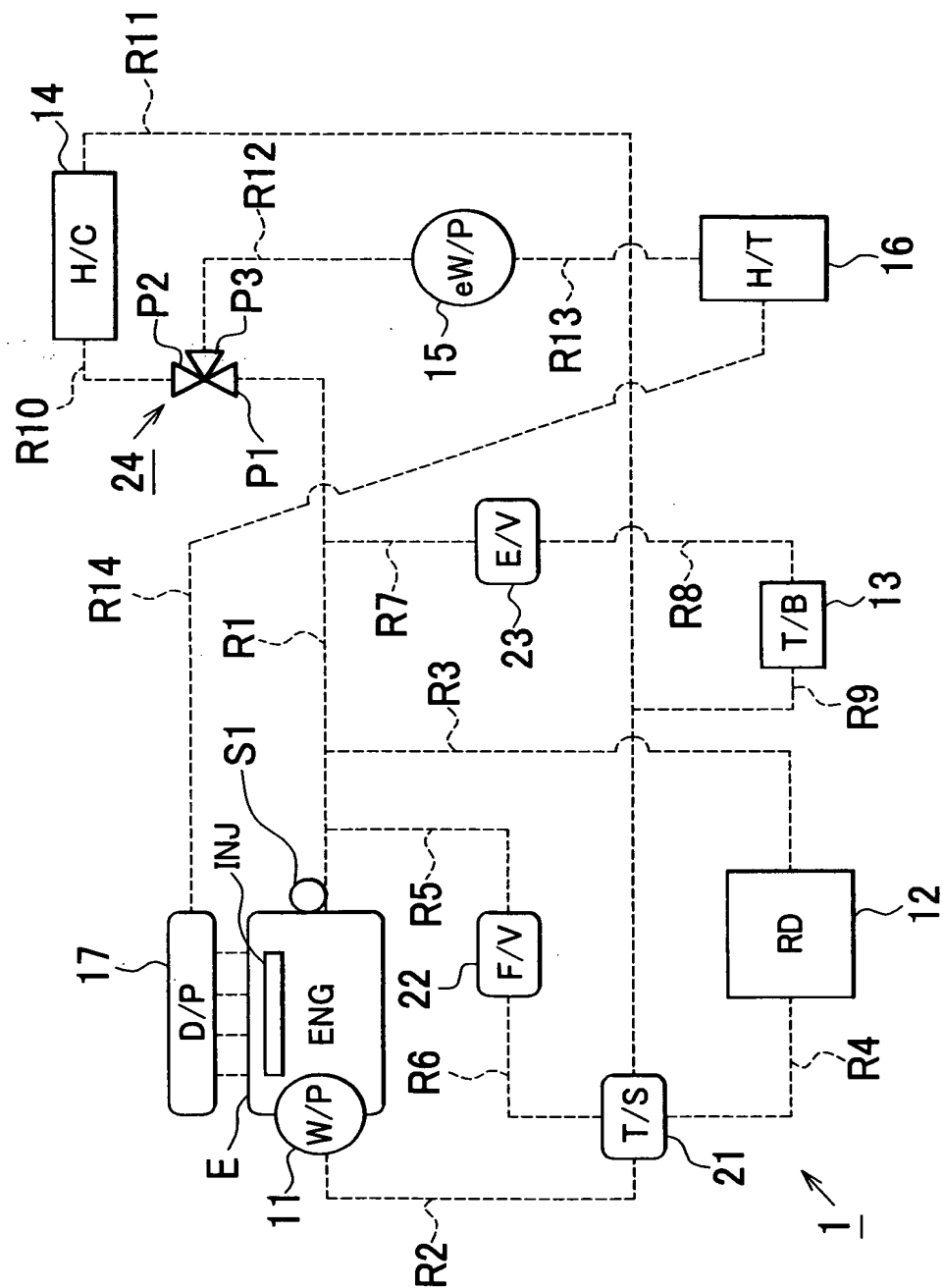


FIG. 7A

ENGINE

FIG. 7B

REQUEST TO
START ENGINE

FIG. 7C

FLOW RATE
CONTROL VALVE

FIG. 7D

OPEN-CLOSE
VALVE

FIG. 7E

THREE-WAY
VALVE

FIG. 7F

ELECTRIC
WATER PUMP

